

## **SESSION-BASED PROCESSING METHOD AND SYSTEM**

Shawn A. P. Smith

Daniel P. Karipides

### **ABSTRACT OF THE DISCLOSURE**

[058] A log file processing system sorts records from large log files and groups them by session without making a complete copy of the log files by capturing a subset of the log files in a sliding memory window and identifying all records in the window that form a complete user session. Records belonging to a complete session are output for analyzing, and the remaining records are output as raw log data for additional processing. Using a ring buffer to implement the sliding memory window, data structures are used to group records by session, to identify completed sessions, and to index into the ring buffer to retrieve records for completed sessions that are to be directly analyzed. Any records remaining in the ring buffer at the end of slide window processing may be output as raw log file data and are processed as incomplete or malformed session records. An embodiment of the log file processing system provides a significant improvement on the speed of data extraction from log files into analyzable session data.